RE: Notes from Stormwater Tech Team Call Sept 14th at 1:15pm
Scheffler, Linda
to:
'Carl Stivers', Scheffler, Linda, Kristine Koch, Amanda Spencer, Andy Koulermos, Laura Jones, Amanda Shellenberger, Sanders, Dawn, LaFranchise, Nicole, TARNOW Karen E
10/10/2007 11:05 AM
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From: "Scheffler, Linda" <LindaSC@BES.CI.PORTLAND.OR.US> Sort List...
To: 'Carl Stivers' <cstivers@anchorenv.com>, "Scheffler, Linda" <LindaSC@BES.CI.PORTLAND.OR.US>, Kristine Koch/R10/USEPA/US@EPA, Amanda Spencer <aspencer@ashcreekassociates.com>, Andy Koulermos <akoulermos@newfields.com>, Laura Jones <ljones@integral-corp.com>, Amanda Shellenberger <ashellenberger@anchorenv.com>, "Sanders, Dawn" <DAWNS@BES.CI.PORTLAND.OR.US>, "LaFranchise, Nicole" <Nicole.LaFranchise@portofportland.com>, TARNOW Karen E <TARNOW.Karen@deq.state.or.us>,

In preparation for our tech call on the 16th, the City offers the following comments on the summary table and path forward for Stormwater Data Gaps discussion:

General Comments:

- Schedule -- in consideration of the RI/FS schedule, ideally additional sample collection will be completed by the end of the year. However, if extending the equipment deployments into the early part of next year would significantly increase the likelihood of obtaining adequate sample volumes to meet objectives, the approved plan should allow for the consideration of a longer deployment. Our previous deployment period represented the tail end of the wet season -- we may find that sediment traps accumulate larger volumes of solids during the fall and early winter months.
- For sites where there is consensus that additional data collection is necessary, the process of securing new access agreements should be initiated to expedite equipment redeployment.
- The table represents additional work requested of the LWG by the tech team. The FSP includes 8 additional sites (7 monitored by the Port and 1 by GE). Additional data will be collected from these sites this fall and data are intended to be utilized in the LWG stormwater evaluation. Because our tech discussion centers on the full data set, the table should be expanded to summarize the what additional data will be collected at these sites. If either the Port or GE does not plan on collecting data needed to meet FSP objectives, the LWG should consider data collection at those sites as well.
- For five locations, we have discussed reviewing existing stormwater data to determine if additional sediment trap data should be collected, but we have not established a decision process to make this determination. Team members should think about what those decision criteria might look like in advance of the meeting. If stormwater concentrations are low for a particular analyte, would we collect sediment to verify that the storm samples didn't miss something? Or if stormwater concentrations are high, would we collect sediment to confirm that the loading is represented correctly?

Specific Comments:

- In our last call we agreed to consider adding an additional Major Transportation land use site, as the SJB location may not be representative. This should be included as a potential monitoring station on the table.
- WR-142/145 (Gunderson) only has one storm event for PCBs and phthalates. Since PCBs have been identified in the sediment and are a site COI, shouldn't an additional two stormwater samples be collected? The table proposes one additional storm event.
- WR-96 (Arkema) is slated for sediment trap deployment -- collection of the third storm event would not represent significant extra effort and would provide a more robust data set for that site given the inherent variability in stormwater data.

Let us know if you need any clarification of these comments.

Linda Scheffler
City of Portland
Bureau of Environmental Services
(503) 823-2296

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All -

OK it appears the nifty table I embedded in the text of the email was a bad idea, since it seems to have been scoured out by some email systems.

So here is the email again, with the supporting table as an Excel attachment. Hopefully, this works better.

Stormwater Technical Team -

As promised, here are the highlights and path forward from the last call. Please let me know if I missed anything. If so, please respond to all with comments and we will revise as agreed by the group. Once we all agree on this summary, Anchor will submit to the LWG Managers for official consideration.

Based on time to complete the data analyses discussed below and obtain LWG approval to release that analysis, I suggest our next call take place on the week of October 15. Please provide me with your available times in that week. I am pretty available except the morning of the Oct 16 (Tues.) and Oct 19 (Fri.) after 11 am. (Laura - Please let us all know if this timeframe seems too ambitious for us to crunch all these numbers.)

The team discussed data gaps and data needs and the proposal for additional sampling in the fall is shown in the attached table.

The team is officially requesting that the LWG consider collecting such data this fall.

While this is under consideration, the team will start discussions of how data will be used to develop stormwater loads, as described by the FSP rationale. To facilitate these discussions it was agreed that the LWG consultants should put together some summaries of existing stormwater data (which we have in hand now). The LWG consultants will consider what types of data summaries might be most useful but will likely include items such as:

- Graphs of distributions of chemical and TSS concentration data

- Summary statistics tables of detections and concentrations

The LWG consultants may provide some additional types of summaries based on an analysis of potential methods for obtaining loading rates. In addition, the consultants will prepare a brief summary of the suggested range of methods that might be employed for calculating loading rates.

Finally, the Stormwater Technical Team requested a copy of the stormwater Field Sampling Report (FSR) to help in interpretation of the data. The FSR will be under internal LWG review most likely next week and once through that process will be submitted to EPA for general use.

Thanks.

Carl

Carl Stivers
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Carl,

Was there a table or something that should have been attached that summarized the additional monitoring that we are recommending? To chime in on the meeting notes and rationale for additional work, I didn't quite understand the asterisk comment in the meeting notes. I don't recall the conclusion that additional data collection needs would be derived from detects vs. non-detects but rather from whether a given site was unique or non-unique and how complete the existing stormwater data set is for each site.

With the heavy industrial sites, we were thinking that for the locations identified in the FSP as unique, a full set of stormwater samples may justify not going back just to fill gaps in the respective stormwater solids samples. But for those unique sites where the stormwater data set is incomplete, additional stormwater sampling would be recommended to have three data points due to the inherent variability in stormwater, statistical analysis, and the potential for the site to be unique. If additional stormwater monitoring work was recommended at a site with incomplete sediment trap data, then it seems logical to redeploy the sediment trap as well. There was also a discussion about the value of collecting solids data at the unique industrial sites, even if there is a full stormwater data set.

For heavy industrial sites in the general land use category, the discussion keyed on a couple of sites (UPRR and OF 22B) that may turn out to be unique once the stormwater data is evaluated in the context of the other general land use sites. For this reason, a robust stormwater data set at these sites may be more important than a full set at the other heavy industrial locations within this category. Additional sediment trap work that we discussed focused on the specific industrial sites and other land use categories. We spent time identifying additional monitoring needed in the other land use categories that was not summarized in the notes. It may be that we are mixing the need to have a better sense of what the stormwater data looks like with the rationale we utilized for determining where further data collection may be warranted.

Linda

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Stormwater Technical Team -

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Based on time to complete the data analyses discussed below and obtain LWG approval to release that analysis, I suggest our next call take place on the week of October 15. Please provide me with your available times in that week. I am pretty available except the morning of the Oct 16 (Tues.) and Oct 19 (Fri.) after 11 am. (Laura - Please let us all know if this timeframe seems too ambitious for us to crunch all these numbers.)

The team discussed data gaps and data needs and the following proposal for additional sampling in the fall emerged:

*If existing data indicates analytes are substantially detected in available storms, a load could be estimated from this and additional data may be less necessary.

The team is officially requesting that the LWG consider collecting such data this fall.

While this is under consideration, the team will start discussions of how data will be used to develop stormwater loads, as described by the FSP rationale. To facilitate these discussions it was agreed that the LWG consultants should put together some summaries of existing stormwater data (which we have in hand now). The LWG consultants will consider what types of data summaries might be most useful but will likely include items such as:

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Thanks.

Carl

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Stormwater Techncial Team

The next call will be on September 14th starting at 1:15 pm with the same call in number: Non Responsive

Non Responsive

At the last meeting we previously discussed having some different formats of summary completeness data that focused more on categories of land uses that will be relevant to loading calculations. Anchor and Integral worked with the City to develop the attached tables. My apologies for not getting this out sooner.

<< File: Data Complete Summary3.xls >>

The tables include three types of summaries: one for stormwater, one for sediments, and one for a summary of both. There are some nuances for all tables that I will need to go over during the start of the call. However, one thing that may stand out for you is the stormwater table, which looks at the number of completed samples in two ways. The first way is looking at the sites on an individual basis such that actual samples over the planned number of samples (usually 3) for that site are not calculated to contribute to the total for that land use category. The second way is to look at land use groups as a group and just tally the total number of samples across all groups. The City suggested that this differentiation may be important, and they can explain more about why during the call.

I suggest our agenda for this call is similar to the last one, but with the benefit of having these additional tables. Therefore, the agenda is still:

1. Discuss data adequacy as it relates to FSP Rationale Objectives.

2. If the objectives are not adequately met, discuss if there is a need for more sampling in the fall to better meet these objectives.

Talk to you soon.

Carl

Carl Stivers
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Stormwater Technical Team -

As promised here are highlights from the last call. As always, please let me know if I missed something important.

The next call will be on September 14th starting at 1:15 pm with the same call in number: Non Responsive

Non Responsive

The three agenda items noted in the email below were discussed.

The first agenda item was to resolve the sediment trap sample handling approach. It was agreed that the approach reflected in the sediment trap summary table provided for the call would be used. LWG members noted that this approach would have to undergo formal LWG Exec approval before the samples would be released for lab analysis. We expect that approval to be discussed on by LWG Exec on August 29th.

The second and third agenda items (regarding data adequacy to meet FSP objectives and any additional sampling needs) was discussed pretty much as a one topic and a variety of concepts were raised and discussed. It was agreed that further data analysis and summarization was needed in order for the group to reach an opinion(s) on the adequacy of the data set. The LWG consultants (Anchor and Integral) with assistance from the City agreed to work on some additional data summarization approaches for presentation to the team. The primary items discussed were:

... In general, organize the completeness data (samples/analytes collected by station) by land use type and site specific (for some industrial sites) categories

... This would be organized separately for stormwater composite samples and sediment trap samples. Then a combined analysis-looking at completeness across these sample types-would also be prepared.

... This would include also reviewing how some specific industrial sites might be used as representative of the heavy industry category in general for some chemicals. For example, pesticides from the Gasco site, which is primarily a PAH site.

It was also discussed that the above analysis could move into examining the actual data (e.g., amounts of detects, magnitude of detects, incidence of blank contamination or other sampling artifacts, variability seen within field replicates etc.) and this might provide additional insight into data adequacy for FSP objectives. However, it was generally agreed that such an analysis would take longer and would not be included in the above initial tasks.

The LWG consultants will work on this with the City such that it can be issued about a week prior to the next call (targeting September 7).

After the call Kristine Koch provided some additional data analysis along the lines of that discussed during the call and summarized the following general concepts that should be examined:

1) The number of minimum samples needed for each land use.

2) A review of the data to see if the data gaps need to be filled. An example here is metals for mixed land use: There are 17 total water, 12 dissolved water, and 1 sediment trap. Do we need more solids samples or is this enough information?

3) A review of the actual analytical data to see if there are other data gaps.

As noted above, the LWG consultants expect to start by focusing on these first two items, at least for right now.

Thanks.

Carl

Carl Stivers
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Stormwater Technical Team -

<< File: B010162_Blanks_Phathalates.xls >> << File: Storm Sample Matrix with T4 and GE.xls >> << File: Sediment Trap Summary Est.xls >>

We are having a call at 1 pm tomorrow (Aug. 23). Please use the following call in number:

Non Responsive

Items on the agenda are:

1. Resolve additional proposal for sediment trap sample handling per City emails since last call.

2. Discuss data adequacy as it relates to FSP Rationale Objectives. The objective are: (with some text explanation of how the data will be used excerpted from the rationale):

a. Stormwater contribution to fish tissue burdens: "Thus, it is necessary to determine the relative contribution of stormwater (as compared to other sources) to surface water concentrations of selected chemicals in the harbor. For stormwater, this would be done in terms of loading estimates."

b. Stormwater contribution to recontamination potential: "To predict whether sediments would recontaminate at levels above the PRGs that will eventually be set for the Site, estimates of stormwater loads are needed for input into estimation tools and models described in Section 1.3; these load estimates must be on a spatial scale consistent with those estimation tools and models. The load estimates should be accompanied by partitioning measurements to assist in the estimation of chemical mass associated with particulates (that may settle to the sediment bed) versus dissolved mass."Atja

3. If the objectives are not adequately met, discuss if there is a need for more sampling in the fall to better meet these objectives.

With regards to the first item, the group requested via email an analysis of whether the phthalates in stormwater were likely a result of blank contamination or similar sampling artifacts. Attached is a table that summarizes this data analysis. In summary, slightly over one-half (155 of 306 results) of the stormwater results from all sampling events were qualified as estimated or undetected because of detections of phthalates in laboratory and field blanks. The stormwater blank results are attached.

With regards to the second and third items, attached are two tables summarizing the number of samples collected (and analytes for those samples) for all sites including the seven T-4 sites and GE Decommisioning site.

Talk to you tomorrow.

Carl

Carl Stivers

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